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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/674,808	10/01/2003	Koichi Otsuki	Q77778	8787
23373	7590	07/21/2005	EXAMINER	
SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			FIDLER, SHELBY LEE	
			ART UNIT	PAPER NUMBER
			2861	

DATE MAILED: 07/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/674,808

Applicant(s)

OTSUKI, KOICHI

Examiner

Shelby Fidler

Art Unit

2861

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-11, 13-17 is/are rejected.
- 7) ☒ Claim(s) 12 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10/01/2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|-----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 9-11, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Otsuki (6700593) in view of Brenner et. al. (6318827).

Referring to claim 1: Otsuki teaches a bi-directional printing method using a printing apparatus (col. 5, lines 22-23) using a printing apparatus (Fig. 1, element 20), in which the method comprises the steps of:

(a) providing a plurality of position adjustment values for a first bi-directional print mode and a second position adjustment value for the second bi-directional print mode (col. 4, line 65 – col. 5, line 1).

(b) selecting a position adjustment value for a bi-directional print mode out of a plurality of position adjustment values (col. 21, lines 30-34).

(c) adjusting dot forming positions along the main scanning direction based on the selected position adjustment value (Fig. 9, element 44).

Otsuki does not teach a printing apparatus capable of mounting a first ink set and a second ink set, each capable of selectively using inks. Brenner discloses an inkjet printer capable of mounting a first ink set and a second ink set and being capable of selectively using inks (col. 5, line 67 – col. 6, line 2). At the time of invention, it would have been obvious to a person of

Art Unit: 2861

ordinary skill in the art to combine Otsuki's invention with Brenner's ink sets. The motivation for doing so, as taught by Brenner is to "select a desired print mode for a given print job (col. 6, line 1)."

Referring to claims 2 and 10: Otsuki does not teach both bi-directional print modes to be color. Brenner discloses both first and second bi-directional print modes are color print modes (col. 4, lines 45-51). At the time of invention, it would have been obvious to a person of ordinary skill in the art to combin Otsuki's invention with Brenner's ink sets. The motivation for doing so, as taught by Brenner is to "select a desired print mode for a given print job (col. 6, line 1)."

Referring to claim 3 and 11: Otsuki teaches generating a test pattern for testing misalignments (Fig. 5, steps S1 & S3), allowing a user to set a position adjustment value to be stored (col. 8, lines 52-58), and generating test patterns suitable for each print mode (Fig. 12, elements S11 & S13).

Referring to claim 9: Otsuki teaches a bi-directional (col. 13, line 38-39) printing apparatus (col. 13, line 54) comprising a print head having a plurality of nozzle groups each including a plurality of nozzles for ejecting an identical color (col. 6, lines 59-60), a position adjustment value storage (Fig. 11, element 202b) that can store a plurality of position adjustment values (col. 4, line 65 – col. 5, line 1), and a position adjuster (misalignment correction executing unit, Fig. 11, element 210) that selects a position adjustment value for a bi-directional print mode from a plurality of position adjustment values (col. 14, lines 33-35). Otsuki does not teach using a first ink set and a second ink set, or using a first bi-directional print mode and a second bi-directional print mode that selectively uses inks included in their respective ink sets. Brenner

Art Unit: 2861

discloses a printing apparatus capable of mounting a first ink set and a second ink set, each capable of selectively using inks (col. 5, line 67 – col. 6, line 2) and having different combinations of available inks through replacement of at least one of the ink tanks (col. 4, lines 3-12). At the time of invention, it would have been obvious to a person of ordinary skill in the art to combine Otsuki's invention with Brenner's ink sets. The motivation for doing so, as taught by Brenner is to "select a desired print mode for a given print job (col. 6, line 1)."

Referring to claim 17: Otsuki teaches a computer program product (col. 5, line 26) comprising a computer-readable medium (col. 5, lines 28-29), a computer program stored on the computer readable medium (col. 5, lines 28-29), the computer program comprising:

a first program that causes a computer to select a position adjustment value from a plurality of position adjustment values including one for a first and second position adjustment value (col. 4, line 65 – col. 5, line 1);

and a second program that causes the computer to adjust dot forming positions during printing based on the selected position adjustment value (Fig. 9, element 44).

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Otsuki in view of Brenner as applied to claim 9 above, and further in view of Wade et. al. (6315381).

Referring to claim 13: Otsuki does not teach an ink cartridge comprising a memory that stores information. Wades discloses an ink cartridge comprising a memory (col. 3, lines 38-39) that stores information used to set the position adjustment value (calibration information is read as position adjustment value, col.3, lines 37-39), a printing apparatus comprising:

a reader that reads out the information from the memory (col. 3, line 37); and

a position adjustment value setter that sets the position adjustment value based on the information read out from the memory (“setting the printer to use the calibration information”, col. 3, line 39). At the time of invention, it would have been obvious to a person of ordinary skill in the art to combine Otsuki’s invention with Wade’s ink cartridges. The motivation for doing so, as taught by Mitsuzawa et. al. (6523926), is that an adjustment value for correcting positional deviation are determined according to the information from the cartridge (col. 2, lines 18-24).

Claims 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Otsuki in view of Brenner as applied to claim 9 above, and further in view of Fujita et. al. (6491373).

Referring to claim 14: Otsuki does not teach the position adjuster using a preset standard value. Fujita discloses a printing apparatus wherein the position adjuster uses a preset standard value when the position adjustment value storage does not store the required position adjustment value for the print mode (col. 20, lines 43-47). At the time of invention, it would have been obvious to a person of ordinary skill in the art to combine Otsuki’s printing apparatus with Fujita’s use of a preset standard value. The motivation for doing so, as taught by Fujita, is so that printing may occur with the adjustment value set at the time of shipment from the factory (col. 20, lines 46-47).

Referring to claim 15: Otsuki does not teach using the position adjustment value for another print mode when the position adjustment value storage does not store the value for the selected mode. Fujita discloses using the position adjustment value for another (default) bi-directional print mode when the position adjustment value storage does not store the position

Art Unit: 2861

adjustment value for the print mode in use (col. 20, lines 43-47). At the time of invention, it would have been obvious to a person of ordinary skill in the art to combine Otsuki's printing apparatus with Fujita's use of a position adjustment value from another print mode. The motivation for doing so, as taught by Fujita, is so that printing may occur with the adjustment value set at the time of shipment from the factory (col. 20, lines 46-47).

Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Otsuki in view of Brenner as applied to claim 9 above, and further in view of Lo et. al. (6268927).

Referring to claim 16: Otsuki does not teach the output of a warning when the position adjustment storage does not successfully store. Lo discloses a printing apparatus (col. 3, line 24) that displays a warning when the position adjustment value is not stored ("form file" is read as position adjustment value, col. 7, lines 23-26). At the time of invention, it would have been obvious to a person of ordinary skill in the art to combine Otsuki's printing apparatus with Lo's warning. The motivation for doing so, as taught by Lo, is so the user may identify files on the storage device (col. 7, line 28-29).

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 4 - 8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Referring to claim 4: “the step (d) includes” infers the inclusion of new material to an already existing step; however, with the inclusion of this new material, step (d) becomes redundant. Additionally, the display and selection of print modes would seemingly further modify step (b) rather than step (d). Therefore, it is unclear as to the applicant’s intentions in this claim.

Referring to claim 5: “the step (a) includes” infers the inclusion of new material to an already existing step; however, with the inclusion of this new material, step (b) becomes redundant. Setting the position adjustment value would seemingly further modify step (b) rather than step (a). Therefore, it is unclear as to the applicant’s intentions in this claim.

Referring to claim 7: “the step (b) includes” infers the inclusion of new material to an already existing step; however, with the inclusion of this new material, step (b) becomes redundant. Therefore, it is unclear as to the applicant’s intentions in this claim.

Referring to claims 6 and 8: It is unclear as to the applicant’s intentions when incorporating the terminology “the step () includes,” since the terminology implies varying intentions in other claims.

Allowable Subject Matter

Claim 12 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

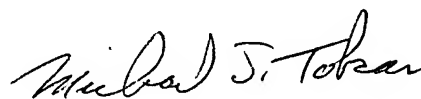
Art Unit: 2861

Referring to claim 12: The most pertinent prior art fails to disclose a method in which the printing apparatus uses information supplied by the ink cartridge memory to supply the user with a selection of bi-directional print modes. Therefore, the claimed invention is not disclosed by the prior art.

Conclusion

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SLF



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